

MEDIA PCS

INTRODUCTION

If you're a home entertainment fanatic, you may be running out of shelf space in your living room. You probably have a Freeview box, a DVD player and a disk-based personal video recorder all wired up to your LCD TV and hi-fi.

But a computer running Microsoft's Windows Media Center Edition does the job of all these standalone boxes – and better. It can play and copy DVDs or CDs. It can record analogue or digital TV on to its hard disk and broadcast it to an Xbox 360 in another room. It can put your entire music and video collection at your fingertips.

A media PC also does everything a normal Windows PC can do, allowing you to surf the internet from your sofa and browse your digital photo collection at your leisure.

A media PC is far more entertaining than your average PC, and designing a good one is far more challenging. In this Labs, we find out which manufacturers have managed the right combination of design, performance and connectivity. We've tested systems from six top media centre makers to help you find the best model for your home.

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Components and handhelds expert

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Who needs DVD players, Freeview boxes and hi-fi kit when a media PC can fill all these roles and more? We test six systems that take home entertainment to a whole new level



HOME COMFORTS

Choosing a... Media PC

The PCs in this month's Labs all run Microsoft Windows XP Media Center Edition, but they have very different specifications. A Media Center PC is a major purchase, so you should check yours does everything you need it to before you buy. This guide will help you make sure you haven't missed anything.

SCREEN TEST

The Media Center PCs in this month's Labs don't come with monitors, so you'll need to ensure they can connect to the monitor or TV you own. Many TVs have several video inputs, but these vary in quality. Composite video is considered to give the worst picture, while SCART RGB and S-video connections are significantly better.

However, if you want to watch high-definition video files, you'll need a D-sub, DVI or component connection. All the media PCs in this month's Labs have D-sub and DVI outputs, and all but one have S-video, but only two have component and three have composite outputs.

SOUND INVESTMENT

To get the best out of your films or media files, you should wire your media PC up to a surround-sound

system. Four of the systems in the group have line outputs to connect to a 7.1 speaker system, but the Watford and Tranquil PC can output only to the older 5.1 surround-sound standard.

If you already have a hi-fi surround-sound decoder, you'll need a way to take the digital audio feed from the media PC and plug it into your decoder. All but one of the media PCs in the group have optical or coaxial S/PDIF outputs, so if your decoder has a matching input you can plug in the digital feed from the media PC and let the decoder split it into the various surround-sound channels.

Instead of the mini-jack 7.1 audio outputs that you would find on a standard PC, the Hi-Grade and Shuttle systems have 7.1 phono sound outputs. While these give better sound quality than mini-jack line outputs, you'll have to buy phono-to-mini-jack converter cables to use PC surround-sound speakers.

ON THE SOURCE

One of the main advantages of a Media Center PC is that you can record from video sources and TV to the internal hard disk. The media PCs in this month's Labs have various different types of video input. All the PCs



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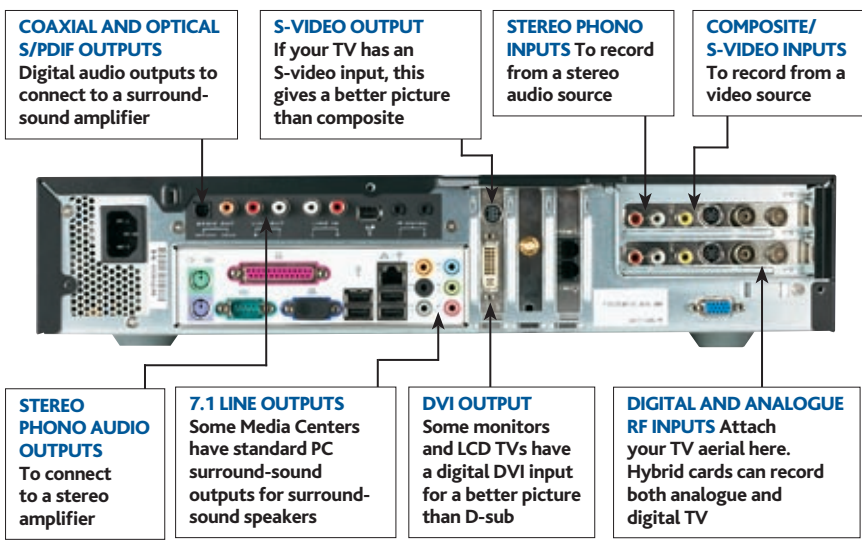


apart from the Tranquil PC and Evesham systems can record from a composite video source, which is the most common type of video output, though one of the worst in quality. However, they all have S-video inputs, which is a significantly better quality video source, though not as common as composite.

The media PCs can all record from a TV aerial, but they vary in how much TV they can record and whether they can record an analogue or a digital TV signal. Digital Freeview TV offers far more channels and potentially better quality than analogue, but not everyone has good enough digital reception to prevent picture problems. The analogue signal in the UK is due to be phased out over the next four years, but you may still want to record analogue TV if the signal is better in your area.

Because of the way Windows XP Media Center works, you cannot record an analogue signal at the same time as a digital one. This means if you want to record more than one channel at once, you have to have two analogue or two digital tuners. The Tranquil PC has two digital tuners, so can record two digital channels at once, while the Shuttle system is limited to recording analogue TV with its twin analogue tuners. The Hi-Grade PC has a twin analogue tuner and single-channel digital tuner, allowing you to record two analogue channels or one digital. The Watford PC's analogue/digital hybrid card can record only a single channel at a time.

Know your connections Common A/V sockets



The most versatile media PCs for recording TV are the Elonex and Evesham systems, which each have two hybrid cards so they can record two analogue or two digital channels at a time.

REMOTE POSSIBILITIES

As Windows XP Media Center PCs are designed to sit in your living room, most of them don't

come with a standard keyboard and mouse. All the PCs have a remote control as standard, which can control Media Center and even the normal Windows software after a fashion.

Four PCs also come with wireless multimedia keyboards, which have shortcut keys for playing media and joysticks or trackballs to move the Windows cursor.



ELONEX Artisan LX

★★★★★

£999 inc VAT

Elonex's Artisan LX is one of the slimmer media PCs in the group, and its black finish and large volume knob make it look like a hi-fi amplifier.

FEATURES

The front of the PC has dedicated buttons for playing and recording media, and the rear is covered with inputs and outputs. There are DVI and D-sub outputs, and stereo phono sockets. While the Artisan LX doesn't have phono surround outputs, there are coaxial and optical S/PDIF audio outputs to connect to a surround-sound decoder. There are also standard 7.1 line outputs, so you can use a 7.1 speaker setup.

This is one of the most versatile PCs for recording. It comes with two hybrid analogue and digital TV cards, so you can record two digital or two analogue TV channels at the same time. The TV cards also have composite and S-video inputs, as well as stereo phono audio inputs, so you can record from almost any source. Its LED display shows CD and DVD track information, but not titles of music files.

The Artisan LX isn't silent like the Pentium M-based Tranquil PC and Shuttle systems, but the hum from its power supply is unobtrusive. It is supplied with a Media Center remote control and a wireless keyboard. The keyboard has large handles so you can hold it on your lap and a joystick for navigating Windows, which works well but isn't as natural as a trackball.

PERFORMANCE

The Artisan's Pentium 4 630 is the slowest desktop processor here, but it still produced a good score in the video encoding test, coming in behind the dual-core Evesham and Watford PCs. Thanks to a generous helping of RAM, its overall score of 112 is also respectable. It didn't have any problems playing high-definition video smoothly. Its Radeon X300SE graphics card has some gaming potential, but only for older titles.

VERDICT

Elonex's Artisan LX is great value for a Media Center PC with a comprehensive set of A/V inputs and outputs. However, the Hi-Grade system's more versatile LCD and larger hard disk make it a better buy.

SUMMARY

- ✓ Comprehensive A/V inputs/outputs
- ✓ Twin hybrid tuners and modem
- ✗ Only 200GB disk

MEDIA PC Intel Pentium 4 630 processor, 1GB RAM, 200GB hard disk, ATI Radeon X300SE graphics, 2x Hauppauge digital/analogue hybrid tuners
SUPPLIER Elonex 020 8452 2444
DETAILS www.elonex.co.uk



EVESHAM Ebox 2

★★★★★

£899 inc VAT



Evesham's Ebox 2 has twin analogue and digital tuners, so you can record two channels of digital or analogue TV at once. It also has a 250GB hard disk for hours of television or video.

FEATURES

The Ebox 2 is one of the best-looking media PCs in the group. Its simple brushed metal front panel and slot-loading optical drive make it look expensive, but it doesn't have an LCD for DVD and CD track or media file information.

The Ebox 2 has plenty of video outputs. As well as the usual D-sub and DVI sockets, there's a composite video output and component outputs to connect to HD TVs. However, it has only RF and S-video video inputs, which limits the devices from which you can record.

Like Elonex's Artisan LX, the Ebox 2 has 7.1 line outputs to connect to a PC speaker set, but instead of an optical or coaxial S/PDIF output it has an S/PDIF mini-jack output. This limits the kind of decoder it can be connected to.

Strangely for a Media Center PC, the Ebox 2 was supplied with a standard wireless keyboard and mouse rather than a keyboard with a built-in pointing device. We would buy the optional Media Center keyboard for an extra £10.

PERFORMANCE

The Athlon 64 X2 3800+ processor didn't have any problems playing our video test files, but its overall performance was disappointing and far behind the X2 3800+-equipped Watford system. Its dual-core processor managed an excellent score of 168 in the video-encoding test, but the combination of 512MB of RAM and integrated graphics contributed to an uninspiring 104 in the *Shopper* benchmarks. It has no 3D power, being unable to run our Doom 3 and Call of Duty 2 benchmarks.

VERDICT

Evesham's Ebox 2 would look great in your living room, and despite its lack of memory and mediocre performance it is very good value. Adding another 512MB of memory would fix the 2D performance problems and make it an even better buy.

SUMMARY

- ✓ Comparatively cheap; twin hybrid tuners
- ✓ Lots of video outputs
- ✗ Mediocre performance

MEDIA PC AMD Athlon 64 X2 3800+ processor, 512MB RAM, 250GB hard disk, ATI Radeon Xpress 200 integrated graphics, 2x Hauppauge digital/analogue hybrid tuners
SUPPLIER Evesham 08701 609500
DETAILS www.evesham.com



HI-GRADE DMS II 3200

★★★★★

£1,056 inc VAT



Hi-Grade's DMS II 3200 may not be the best-looking PC in the group, but it has unrivalled audio outputs and excellent performance.

FEATURES

The DMS II 3200's case isn't the smallest in the group, but it is packed with features. The front has S-video in, composite video in and phono audio outputs. There are also jack plug headphone and microphone sockets. The VFD display is excellent, showing DVD chapter and track information as well as song title, artist and album when playing a digital audio file.

Hi-Grade has gone the full hi-fi route with the outputs on the rear of the case. The DMS II 3200 has its own 7.1 surround-sound decoder and the rear panel has a set of stereo phono surround-sound outputs. These are ideal for connecting a surround-sound amplifier without its own built-in decoder. There are no mini-jack 7.1 outputs, so if you want to use a 7.1 PC speaker set you'll need to buy phono-to-mini-jack cables. There are also coaxial and optical S/PDIF outputs to connect to a decoder.

The DMS II is one of two PCs without component or composite outputs, so your TV will need a D-sub, DVI or S-video input. It can record from a composite or S-video source as well as FM or RF. It was supplied with a twin analogue tuner card plus a digital tuner card. Windows Media Center won't let you record using both cards at once, so you're limited to recording two analogue channels or one digital.

PERFORMANCE

Like all the systems with desktop processors, the DMS II plays high-definition video without missing frames. It couldn't match the dual-core systems in our video-encoding test, but its 1GB of RAM helped secure an overall score of 112 in the *Shopper* benchmarks. 3D performance is the best here thanks to the GeForce 6600 graphics. We tested at 1,280x1,024, but Doom 3 would run smoothly at 1,024x768 resolution.

VERDICT

Hi-Grade's DMS II 3200 has a comprehensive specification, excellent 3D performance and outstanding build quality.

SUMMARY

- ✓ Excellent performance
- ✓ Excellent features
- ✗ Analogue two-channel recording

MEDIA PC Intel Pentium 4 640 processor, 1GB RAM, 250GB hard disk, nVidia GeForce 6600 graphics, Black Gold digital tuner, AVerMedia twin analogue tuner
SUPPLIER Hi-Grade Computers 020 8532 6111
DETAILS www.higrade.com



SHUTTLE M1000



£1,267 inc VAT

Shuttle's M1000 is a slim, quiet media centre with a huge number of inputs and outputs. However, it is expensive and not quite powerful enough to play high-definition video.

FEATURES

The M1000 is based on Intel's Pentium M processor. These are designed to be used in notebooks and use less power and produce less heat than a desktop chip. The M1000 isn't totally silent, but it hardly makes any noise.

The front of the PC's VFD display shows CD and DVD track information plus names of playing media files. There is also a card reader and a 2½" hard disk bay. The M1000 is supplied with a hard disk enclosure that fits into this bay but you have to supply your own 2½" disk.

Like Hi-Grade's DMS II, the M1000 has a full set of 7.1 audio phono outputs on the rear, as well as optical and coaxial digital audio sockets. There is also an optical audio input to record from a digital audio source such as a CD player. The M1000 has D-sub, DVI, S-video and component video outputs, so you can connect it to most LCD TVs.

The M1000's TV cards let you record from composite or S-video sources as well as RF, but the two tuners are analogue-only. They are mounted in standard PCI slots so it's easy to upgrade to digital, but we would have preferred hybrid or digital tuners supplied as standard.

PERFORMANCE

The Pentium M 740 runs at just 1.73GHz so it couldn't keep up with the desktop processor-based PCs in our benchmarks. An overall score of 80 is sufficient for normal Windows applications, but the M1000 struggled with our high-definition video test files, occasionally dropping frames and giving video a jerky appearance. Its 3D performance is above average and suggests that Doom 3 will run smoothly at 1,024x768 resolution.

VERDICT

Shuttle's M1000 is a desirable media PC that can connect to just about anything. However, it only comes with analogue tuners and struggles with high-definition video, so it will look out of date in a couple of years.

SUMMARY

- ✓ Quiet; plenty of A/V outputs
- ✗ Struggles with HD video
- ✗ Only analogue TV support

MEDIA PC Intel Pentium M 740 processor, 512MB RAM, 250GB hard disk, nVidia GeForce 6600LE graphics, 2x AVerMedia AVerTV analogue tuners
SUPPLIER Scan Computers 08707 554747
DETAILS www.scan.co.uk



TRANQUIL PC AVA2-D4



£1,128 inc VAT

Tranquil PC's AVA2-D4 is a beautifully designed and silent system, but its outdated chipset and modest processor limit its media capabilities.

FEATURES

The AVA2-D4 is the slimmest PC in the group and its case is passively cooled. The right-hand side is covered with cooling fins, and both the power supply and processor heat sink do without fans. The front of the chassis is bare apart from the power switch and optical drive, and the rear is minimalist too. There is room for D-sub, DVI, S-video and composite video outputs, but the AVA2-D4 has only line-out sockets for 5.1 audio and not the 7.1 audio present on most other systems. There is an optical S/PDIF out, so you can always connect the AVA2 to a surround-sound decoder.

If you want to record to the AVA2-D4's 250GB hard disk, you are limited to using the S-video or RF inputs on the twin digital tuner cards. Having two digital cards means you can record two digital channels at once, though.

The AVA2-D4 is designed purely for Media Center use, as it comes with a remote control but no keyboard. A wireless keyboard is a £45 optional extra, but we feel it should be included given the price of the system.

PERFORMANCE

Although the AVA2-D4 has the same 1.73GHz Intel Pentium M processor as Shuttle's M1000, it is based on the Intel i845G chipset. This older chipset hampered its performance in the video encoding test, where it came last behind the Shuttle with a score of 68.

However, the AVA2-D4 comes with a gigabyte of RAM, so its scores in the image-manipulation and multi-task tests were much better. Unfortunately, the outdated chipset meant the AVA2-D4 had more trouble than the M1000 when playing our high-definition video files. It often lost lip sync and dropped frames.

VERDICT

The AVA2-D4 is expensive, but it's a silent and well-engineered system. Unfortunately, its audio capabilities are limited and the outdated chipset makes it too slow to play high-definition video downloads.

SUMMARY

- ✓ Silent
- ✗ Can't play high-definition video
- ✗ Graphics can't be upgraded

MEDIA PC Intel Pentium M 740 processor, 1GB RAM, 250GB hard disk, Intel 845GV integrated graphics, 2 Black Gold digital tuners
SUPPLIER Tranquil PC 0161 776 4323
DETAILS www.tranquilpc.co.uk



WATFORD Aries Media Experience 2006+



£899 inc VAT

Watford's Aries Media Experience 2006+ is a great-value media PC. It lacks a high-spec sound card, but its performance is excellent and it's cheaper than most other systems here.

FEATURES

This system is by far the biggest PC here. This doesn't mean extra room for expansion, however. Although there's room for a full-size motherboard, Watford has fitted a microATX one instead. There are three free PCI slots, but one is partially obscured by the graphics card.

It has DVI, S-video and composite outputs as standard. There are further D-sub and SCART outputs on a breakout cable, which plugs into a connector on the ATI All-in-Wonder 2006 graphics card. This is a hybrid analogue and digital card, so you can record one analogue or one digital channel at a time.

There are no graphics inputs built into the chassis, but another cable has composite and S-video inputs as well as stereo phono audio. The audio hardware is disappointing, though, with just 5.1 audio line outputs.

The Aries is supplied with a Media Center keyboard and its keys have better travel and feedback than other keyboards in the group.

The front of the chassis is fitted with an iMon VFD display (see *PC Builder*, *Shopper* April 2006). This displays the name of the media file, as well as DVD track and chapter information, but you may have to download the free FrontView utility to make it work correctly.

PERFORMANCE

The Aries performed superbly in our tests. The dual-core Athlon X2 3800+ processor and 1GB of RAM gave it the top score in the *Shopper* benchmarks and PCMark04. It can also play high-definition video without a hitch. 3D performance is above average and Doom 3 runs smoothly at 1,024x768 resolution.

VERDICT

Watford's Aries Media Experience 2006+ is very powerful, but the lack of a high-specification audio chipset means it can't match the Evesham Ebox 2 for value.

SUMMARY

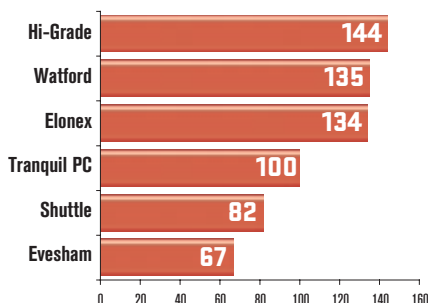
- ✓ Excellent performance
- ✓ Comparatively cheap
- ✗ Only 200GB disk; low-spec sound

MEDIA PC AMD Athlon 64 X2 3800+ processor, 1GB RAM, 200GB hard disk, ATI Radeon X1300 graphics, ATI All-in-Wonder 2006 digital/analogue hybrid tuner card
SUPPLIER Savastore 08716 661616
DETAILS www.savastore.com

BENCHMARKS

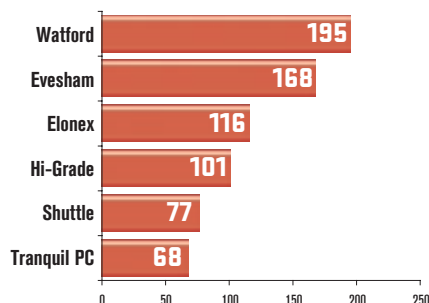
2D Performance Shopper application tests

Image-Editing Test



SETTINGS We run our application tests at 1,280x1,024 resolution and in 32-bit colour
WEB www.computershopper.co.uk

Video-Encoding Test



Computer Shopper's 2D benchmarks are designed to show how PCs stand up to the toughest tasks Windows can throw at them. Today's PCs have no problem running office applications such as Word and Excel, so we have chosen to focus our tests on areas where you could experience difficulties.

In the new version there are four scripts. Encoding a short video to MPEG 2 format is a processor-intensive task that anyone transferring home videos to DVD will have to tackle. Our

Overall

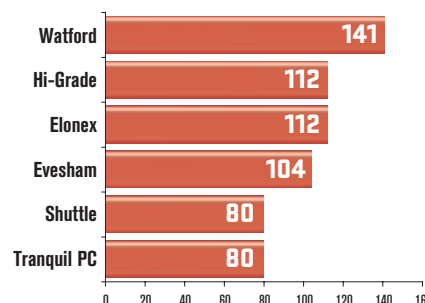
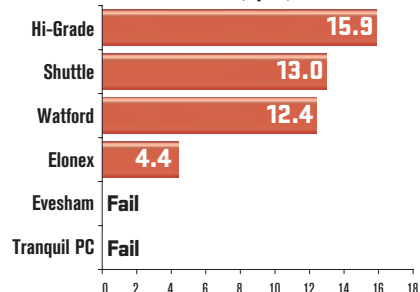


image-editing test simulates a session of photo enhancement using Paint Shop Pro X. In our third test, a set of audio files is ripped to MP3 format. Finally, we have a multi-tasking test designed to test the benefits of Hyper-Threaded and dual-core processors. This test compresses a DVD for playback on a Pocket PC at the same time as running our image-editing test.

Figures are relative to a reference Evesham Athlon 64 3500+, which scores 100 in all tests.

3D Performance Doom 3/Call of Duty 2

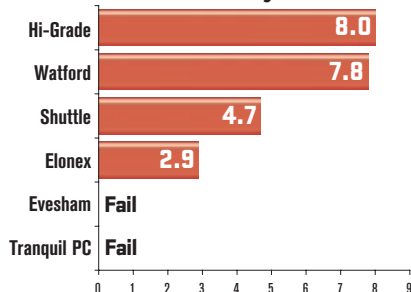
Doom 3 (fps)



SETTINGS 1,280x1,024 resolution, high quality, 4x AA
WEB www.doom3.com

Our Doom 3 benchmark tests whether a PC has the power needed to play cutting-edge 3D games. A good score here indicates that a PC should cope with any graphically intense 3D game coming on to the market today.

Call of Duty 2

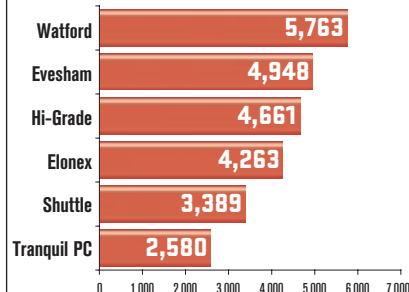


SETTINGS 1,280x1,024 resolution, 32-bit colour, default settings
WEB www.futuremark.com

Call of Duty 2 uses DirectX and is one of the most demanding games available at the moment. With a wide range of effects and frenetic action, it tests every aspect of graphics performance.

2D Performance PCMark04

PCMark04



SETTINGS 1,280x1,024 resolution, 32-bit colour, default settings
WEB www.futuremark.com

As well as our own benchmarks, we test all desktop and notebook PCs using Futuremark's PCMark04. You can download a free version of this benchmark from www.futuremark.com/download.

Labs Verdict Media PCs

The six manufacturers in this month's Labs each had a different approach to building a Media Center PC. Some of the PCs look so much like hi-fi components, you wouldn't guess they run Windows. Others are more like standard desktop PCs with TV cards fitted.

The two Pentium M PCs are beautifully designed and very quiet. However, they are underpowered compared to the other computers, so they are less versatile in the long run. Choose one of these only if you'll just be using their core media functions.

All the other PCs offer capabilities beyond their media duties, such as playing games at lower

resolutions or handling high-definition video. Take the prices into account, and there are two clear winners. Evesham's Ebox II needs a memory upgrade to maximise its performance, but it is still good value – particularly for such a stylish, twin-tuner PC. It's our Budget Buy.

The Hi-Grade DMS II 3200's impressive specification, multitude of connections and decent 3D performance make it the most rounded system in the group. It will look the part in any living room with its hi-fi style build quality and excellent display. It's well worth the extra £150 and is our Best Buy winner.

EVESHAM Ebox 2



HI-GRADE DMS II 3200





MANUFACTURER	ELONEX	EVESHAM	HI-GRADE	SHUTTLE	TRANQUIL PC	WATFORD
Model	Artisan LX	Ebox 2	DMS II 3200	M1000	AVA2-D4	Aries Media Experience 2006+
Overall rating	★★★★	★★★★★	★★★★★	★★★	★★★	★★★★
Processor	Intel Pentium 4 630	AMD Athlon 64 X2 3800+	Intel Pentium 4 640	Intel Pentium M 740	Intel Pentium M 740	AMD Athlon 64 X2 3800+
Processor speed	3GHz	2GHz	3.2GHz	1.73GHz	1.73GHz	2GHz
Processor socket	Socket 775	Socket 939	Socket 775	Socket 479	Socket 479	Socket 939
Level 1 cache	16KB	2x 128KB	16KB	64KB	64KB	2x 128KB
Level 2 cache	2MB	2x 512KB	2MB	2MB	2MB	2x 512KB
Memory installed	1GB	512MB	1GB	512MB	1GB	1GB
Memory type	PC3200	PC3200	PC3200	PC2700	PC2700	PC3200
Maximum memory	4GB	4GB	4GB	2GB	1GB	2GB
Motherboard	FIC P4M-915G/PD1	MSI RS482M4	Intel D915POM	Shuttle 3031V10	Comell LV-675	ECS RS482-M 1.0A
Motherboard chipset	Intel i915G	ATI RS480	Intel i915G	Intel i915GM	Intel i845G	ATI RS480
Memory bus speed	200MHz	200MHz	200MHz	166MHz	166MHz	200MHz
BIOS	Phoenix Award	AMI	Intel	Phoenix Award	Phoenix Award	Phoenix Award
PORTS						
USB2 ports (front/rear)	2/4	2/4	2/2	2/2	0/2	2/4
FireWire ports (front/rear)	1/1	1/1	1/2	1/1	0/1	1/1
Networking	10/100, 802.11b/g	10/100, 802.11b/g	10/100, 802.11a/b/g	10/100/1,000, 802.11b/g	10/100/1,000, 802.11b/g	10/100
Legacy ports	Parallel, Serial, 2x PS/2	Parallel, 2x PS/2	None	None	Parallel, 2x PS/2	Parallel, Serial, 2x PS/2
INTERNAL EXPANSION						
Case	Desktop	Desktop	Desktop	Desktop	Desktop	Desktop
Case size HxWxD	84x427x401mm	88x430x287mm	87x430x390mm	78x442x350mm	64x382x362mm	133x432x456mm
PCI (free)	4 (0)	2 half-height (0)	2 (0)	2 (0)	1 half-height (0)	3 (3)
PCI-E x1 (free)	0 (0)	1 half-height (1)	1 (0)	0 (0)	0 (0)	0 (0)
PCI-E x16 (free)	1 (0)	1 half-height (1)	1 (0)	1 (0)	0 (0)	1 (0)
AGP (free)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Serial ATA (free)	4 (3)	4 (3)	2 (1)	2 (1)	0 (0)	4 (3)
IDE (free)	1 (0)	2 (1)	1 (0)	1 (0)	2 (1)	2 (1)
Memory (free)	4 (2)	4 (2)	4 (2)	2 (0)	1 (0)	2 (0)
Drive bays 3 1/2" (free)	1 (0)	1 (0)	2 (1)	1 (0)	2 (1)	1 (0)
Drive bays 5 1/4" (free)	1 (0)	None (1 notebook bay)	1 (0)	1 (0)	None (1 notebook bay)	1 (0)
HARD DISK						
Model	Seagate ST3200826SCE	Western Digital WD2500	Hitachi Deskstar HDT7225DLA380	Seagate ST3250823SCE	Samsung SP2514N	Maxtor 6L200M0
Interface	SATA 150	SATA 150	SATA 150	SATA 150	ATA133	SATA 150
Capacity	200GB	250GB	250GB	250GB	250GB	200GB
Spin speed	7,200rpm	7,200rpm	7,200rpm	7,200rpm	7,200rpm	7,200rpm
GRAPHICS						
Technology	PCI Express	PCI Express	PCI Express	PCI Express	AGP	PCI Express
Graphics card	ATI Radeon X300SE	ATI Radeon Xpress 200 integrated graphics	nVidia GeForce 6600	nVidia GeForce 6600LE	Intel 845GV integrated graphics	ATI All-in-Wonder 2006
Graphics chipset	ATI Radeon X300SE	ATI Radeon Xpress 200	nVidia GeForce 6600	nVidia GeForce 6600LE	Intel 845GV	ATI Radeon X1300
Graphics memory	256MB	64MB shared	128MB	256MB	64MB shared	256MB
Graphics/video outputs	DVI, D-sub, S-video	DVI, D-sub, S-video, component, composite	DVI, D-sub, S-video	DVI, D-sub, S-video, component	DVI, D-sub, S-video, composite	DVI, composite, SCART, D-sub on breakout cable
TV card	2x Hauppauge WinTV HVR-1300 digital/analogue hybrid tuners	2x Hauppauge WinTV HVR-1100 digital/analogue hybrid tuners	Black Gold BDA digital tuner, AVerMedia twin analogue tuner	2x AVerMedia AVerTV M113 analogue tuners	2x Black Gold BDA digital tuners	ATI All-in-Wonder 2006 digital/analogue hybrid
A/V inputs	2x S-video, 2x composite, 2x FM, 2x RF, 3x stereo phono audio input, audio mini-jack	2x RF, 2x S-video, 3x audio mini-jack	S-video, composite, 2x RF, FM	2x S-video, 2x composite, 2x FM, 2x RF, Optical S/PDIF input, 2x stereo phono audio input	2x RF, 2x S-video, 1x audio mini-jack	RF, FM, S-video, composite, stereo phono audio, stereo mini-jack audio on breakout cable, 1x audio mini-jack
SOUND						
Sound card	Realtek High Definition Audio	Realtek High Definition Audio	Realtek High Definition Audio	Sound Blaster Live! 24-bit	Realtek AC 97	Realtek AC 97
Sound card outputs	7.1 line out, optical S/PDIF out, coaxial S/PDIF out, stereo phono audio output	7.1 line out, coaxial S/PDIF out	7.1 phono line out, optical S/PDIF out, coaxial S/PDIF out	7.1 phono line out, S/PDIF optical out	5.1 line out, optical S/PDIF out	5.1 line out
REMOVABLE DRIVES						
Floppy drive 3 1/2"	No	No	No	No	No	No
Memory card reader	Secure Digital/MultiMedia Card/Memory Stick/Memory Stick PRO/Smart Media/CompactFlash	Secure Digital/MultiMedia Card/Memory Stick/Memory Stick PRO/Smart Media/CompactFlash	Secure Digital/MultiMedia Card/Memory Stick/Memory Stick PRO/Smart Media/CompactFlash	Secure Digital/MultiMedia Card/Memory Stick/Memory Stick PRO/Smart Media/CompactFlash	USB card reader/hub supports Secure Digital/MultiMedia Card/Memory Stick/Memory Stick PRO/Smart Media/CompactFlash/xD	No
Optical drive	Samsung SH-W162C (16X DVD+R, 16X DVD-R, 8X DVD+RW, 6X DVD-RW, 6X DVD+R DL, 4X DVD-R DL, 48X CD-R, 32X CD-RW, 16X DVD, 48X CD)	Sony DW-Q78A (8X DVD+R, 8X DVD-R, 8X DVD+RW, 6X DVD-RW, 4X DVD+R DL, 24X CD-R, 24X CD-RW, 8X DVD, 24X CD)	Lite-On SOHW-16735 (16X DVD+R, 16X DVD-R, 8X DVD+RW, 6X DVD-RW, 4X DVD+R DL, 48X CD-R, 24X CD-RW, 16X DVD, 48X CD)	Loader BDR-L065 (4X DVD+R, 4X DVD-R, 2X DVD+RW, 2X DVD-RW, 40X CD-R, 24X CD-RW, 6X DVD, 12X CD)	Matshita UJ-8455 (8X DVD+R, 8X DVD-R, 4X DVD+RW, 4X DVD-RW, 24X DVD+R DL, 24X CD-R, 16X CD-RW, 8X DVD, 24X CD)	NEC ND-3520A (16X DVD+R, 16X DVD-R, 8X DVD+RW, 6X DVD-RW, 4X DVD+R DL, 4X DVD-R DL, 48X CD-R, 24X CD-RW, 16X DVD, 48X CD)
OTHER HARDWARE						
Modem	Yes	No	Yes	No	No	No
Keyboard	BTC 9019URF wireless keyboard	Microsoft Wireless Multimedia Keyboard 1.0A	TCN RK0410 wireless keyboard	Shuttle Media Center Wireless Keyboard	None	Microsoft Remote Keyboard for Media Center 1.0
Mouse	None	Microsoft Wireless Optical Mouse 2.0A	None	None	None	None
Remote control	Yes	Yes	Yes	Yes	Yes	Yes
Extras	Composite/phono audio to SCART converter lead, Composite/S-video and phono audio to SCART converter	SLX Aerial Signal Booster, 54MB/s wireless USB adaptor	Composite/S-video and phono audio to SCART converter	2 1/2" hard disk enclosure	None	None
SOFTWARE						
Software included	Firstware Recovery Pro, CyberLink PowerDVD 6, Nero Burning ROM 6.3	Bullgard Anti-virus 5, Microsoft Works 8, Roxio Easy Media Creator Basic DVD 7, CyberLink PowerDVD 6	Open Office 2, Bullgard Anti-virus 5, CyberLink PowerDVD 5, Sonic RecordNow 7	CyberLink PowerDVD 6, Trend-Micro PC-Cillin 2005, Wasay ProMagis Plus 6	CyberLink PowerDVD 6, Acronis TrueImage 9, ZoneAlarm 6	F-Secure Antivirus 2006, Roxio VCD/DVD Studio 7
Operating system	Windows XP Media Center Edition	Windows XP Media Center Edition	Windows XP Media Center Edition	Windows XP Media Center Edition	Windows XP Media Center Edition	Windows XP Media Center Edition
Operating system restore option	Recovery partition	Restore CD	Recovery partition	Recovery partition	Windows CD	Windows CD
BUYING INFORMATION						
Warranty (parts and labour)	Three years onsite	Two years onsite, one year RTB	Two years collect and return	Two years RTB	Two years RTB	1 year onsite
Technical support times	9am-5.30pm Mon-Fri, 9am-1pm Sat	9am-5.30pm Mon-Fri	9am-5.30pm Mon-Fri	9am-7pm Mon-Fri	8.30am-5.30pm Mon-Fri	9am-5pm Mon-Fri, 9am-1pm Sat
Company founded	1986	1983	1986	1983	2003	1972
Tech support staff	30	84	10	Not disclosed	2	10
Price including delivery (inc VAT)	£999	£899	£1,056	£1,267	£1,128	£899
Price including delivery (ex VAT)	£850	£765	£899	£1,078	£960	£765
Supplier	Elonex	Evesham Technology	Hi-Grade Computers	Scan Computers	Tranquil PC	Savastore
Phone	020 8452 2444	08701 609500	020 8532 6111	08707 554747	0161 776 4323	08716 661616
Web	www.elonex.co.uk	www.evesham.com	www.higrade.com	www.scan.co.uk	www.tranquilpc.co.uk	www.savastore.com